

ABSTRACT OF THE DISCLOSURE

A magnetoresistance effect element includes a first ferromagnetic layer (1), insulating layer (3) overlying the first
5 ferromagnetic layer, and second ferromagnetic layer (2) overlying the insulating layer. The insulating layer has formed a through hole (A) having an opening width not larger than 20 nm, and the first and second ferromagnetic layers are connected to each other via the through hole.